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# Effect of electric field and acceptor position on the energy spectrum of GaAs/AlAs quantum dot

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## Abstract

The spherical quantum dot (QD) with acceptor impurity in the external electric field has been considered. A multiband model of the valence band has been applied. Quantum Stark effect has been studied for hole levels in the QD. The influence of acceptor and electric field on hole-level splitting has been defined. Those influences will change the optical parameters of QDs. © 2022 Elsevier B.V.

## Author keywords

Acceptor impurity; Electric field; Hole energy spectrum; Level splitting; Multiband hole model

## Indexed keywords



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